LIGHTNING SAFETY

- The following slide show is based on information provided by the National Weather Service and HEC Safety
- For more tips and information about Lightning and weather safety, go to www.noaa.gov

Lightning Safety Outdoors

- LIGHTNING FACTS:
  - Each year there are about 25 million cloud-to-ground lightning flashes in the US
  - Each one is a potential killer
  - Lightning kills more people in the US than tornadoes or hurricanes.
  - The most dangerous place to be during a storm is **OUTDOORS**

The Lightning Safety Awareness Problem:

- People don’t act promptly to protect their lives and the lives of others because they don’t understand all the dangers associated with lightning and thunderstorms

When Lightning Strikes

- Will you be in a safe place?
- Will you be doing the right thing?
  - Most people seek shelter when thunderstorms move overhead…
  - But many leave themselves vulnerable when storms approach, are nearby, and move away.

How Lightning Forms

- Ice particles and wind in the storm clouds generate an electrical charge.
- Oppositely-charged particles gather along the ground
- As the charge difference increases, charged particles rise up taller items on the ground
- When there is enough energy on each side, the oppositely-charged storm area sends a charge to ground
- The electrical transfer occurs as lightning

Where Does Lightning Strike?

- Most people see lightning when it is raining – so they think they are safe if it is still dry.
- Lightning does not need rain to strike.
- The charge may travel 10 miles to strike the ground.
- When you hear thunder, seek cover – don’t wait for the rain.

After the Storm…

- The risk of lightning may still exist after the rain has stopped.
- Dangerous charges may exist in the clouds and on the ground.
- The lightning risk can persist after the storm has passed. Wait 30 minutes after the last thunder before going out

LIGHTNING SAFETY TIP:

- Get to a safe place sooner
- Stay in the safe place longer
- Your vulnerability depends on your behavior around thunderstorms

What To Do For Outdoor Activities:

- Plan ahead for the possibility of Thunderstorms – have alternate plans and safe places identified
- Listen to NOAA Weather Radio for up-to-date forecasts
- Monitor local weather conditions – be ready to take action.

Where Should You Go For Safety?

- A substantial building provides the best protection (school, church, mall)
- A house also provides good protection
- If you can’t get to a substantial building, a hard-topped metal vehicle with closed windows will provide protection.
- Small or open shelters (sheds, picnic shelters) are **NOT SAFE** during thunderstorms

LIGHTNING SAFETY TIP:

- An AM Radio can alert you to a nearby thunderstorm – the radio will pick up the static of a lightning discharge from a storm well before you can hear the thunder.

If You Are Caught Outside

- You are at risk of being struck by lightning
- By taking some preventative measures you can lower that risk
- If you are caught outside and can’t get to a safe place, the following steps should be taken:

In An Open Area:

- Find a low spot away from isolated trees and other tall objects.
- Crouch down on the balls of your feet – do not lie on the ground.
- Don’t be the tallest object or be near the tallest object.

In The Woods:

- Take shelter in an area of shorter trees
- Avoid creek beds, gullies, and wash-outs – there may be a flash flood.

Boating Or Swimming

- Get to land immediately and seek safe shelter

Stay Away From Metal Fences, Wires, and Structures

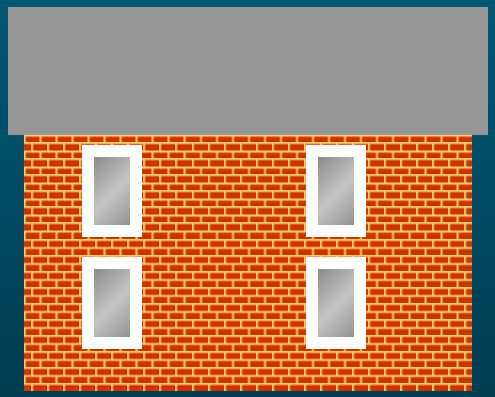
- These can carry lightning charges long distances.
- Remember your pets as well – metal runners or chains can increase your pet’s risk of being struck by lightning.

Warning Signs of Imminent Lightning Strike

- The buildup of electrical charges can cause:
  - Hair standing on end
  - Tingling sensations
  - Sparks nearby
  - Unusual odors

Safe Shelters and Indoor Lightning Safety

- Safe Shelters are substantial buildings with wiring and plumbing throughout



During A Thunderstorm:

- How to be safe if lightning strikes your home

Lightning Safety Indoors

- Lightning can enter your home through wires, pipes, metal connections, or the ground

Home Points of Entry

- WIRES
  - Phone lines
  - Electrical wires
  - Cables to antennae
  - Cables to receivers

Home Points of Entry

- Pipes
  - Water or supply pipes
  - Well pipes
  - Metal septic or sewer lines

Home Points of Entry

- Metal Connections
  - Window and door frames
  - Outdoor plumbing fixtures
  - Outdoor light fixtures
  - Door knobs and dryer vents

Home Points of Entry

- The ground
  - Concrete floors
  - Concrete walls

If Your Home Is Struck By Lightning

- Beware of a possible fire
- Have your home’s electrical system checked
- Call your insurance company

Indoor Protective Measures

- Unplug sensitive electrical equipment (TVs, Computers, etc.) BEFORE the storm
- Stay off corded phones
- Stay away from electrical equipment
- Don’t unplug electrical equipment during the storm
- Stay away from windows and doors
- Stay inside – don’t sit on a porch

LIGHTNING FACT:

- In the past, the use of corded phones has been the leading cause of indoor lightning casualties.
- Cordless phones are safe as long as you’re in a safe place and away from the base station (plug-in part of phone)

If Lightning Strikes:

- People who have been struck by lightning DO NOT carry an electrical charge and should be tended to immediately.
- Call Emergency Services (911), Check the victim for heart and respiratory problems, Provide first aid if needed.

What You Should Do

- Plan ahead for dealing with lightning
- Know where safe shelter is
- Establish home safety measures
- Educate your family
- Be Safe